

TAVERO[®] HEA2[®]

Grinding aid / pack set inhibitor

Product Description

TAVERO[®] HEA2[®] is an aqueous solution of an amine acetate salt with the following specifications:

Specific Gravity @ 25 °C	1.145 - 1.175
Insolubles	0.1% max
pH	8 - 10
Viscosity	33 cps @ 21 °C
Foaming Tendency	None

TAVERO[®] HEA2[®] is one of the most effective dispersants yet developed for use as a grinding aid/pack set inhibitor for portland cement and other hydraulic cements.

TAVERO[®] HEA2[®] greatly improves the efficiency of the grinding process by reducing the surface energy forces which cause agglomeration of the newly fractured cement particles. TAVERO[®] HEA2[®] is effective in both open circuit and closed circuit cement mills.

Advantages

Increased mill output at same cement fineness

More than 30 years of industrial TAVERO[®] HEA2[®] usage at cement plants in America, Europe and Asia-Pacific indicate the following typical production increases:

BLAINE SURFACE AREA(CM ² /GRAM)	TYPICAL MILL OUTPUT INCREASE (%)
2700 - 3100	8 - 15
3100 - 3500	10 - 20
3500 - 4000	12 - 25
4000 - 5000	15 - 30
Over 5000	20 - 40

Reduced grinding costs

The increased mill output with TAVERO[®] HEA2[®] at same cement fineness and energy consumption provides savings through lower grinding costs per ton of cement.

Higher cement strengths

ASTM test data shows that TAVERO® HEA2® significantly increases compressive and flexural strengths of cements, particularly at early ages. Increases as high as 25% are not uncommon; however the average of all tests for all ages is 10%.

Increased cement flowability

The dry dispersive action of TAVERO® HEA2® results in vast improvements in cement flowability characteristics. A marked reduction of pack set or “silo set” is also noticeable for TAVERO® HEA2® treated cements.

PACK SET PUMPING RATE	INDEX IN TONS/HOUR
23	42
19	80
7	110

The improved flowability of cements with TAVERO® HEA2® results in faster loading and unloading times of bulk tankers. Capacities of pneumatic conveying equipment are also increased.

A test method for assessing the pack set index (stickiness) of cements is available upon request. Typical information establishing the correlation between pack set index and flowability of cement was shown in a study where pack set indices versus pumping rates, through a 1,500m Fuller Kinyon line, were measured and compared.

Greater bulk density

TAVERO® HEA2® increases the bulk density of cement by up to five percent, providing increased storage capacities of silos and bulk carriers.

Controlled set times

Special TAVERO® HEA2® formulations designed to extend cement setting times are available through your local GCP representative.

Handling

TAVERO® HEA2® may be dispensed as received. However, dilution with 5 parts water or more is recommended to ensure greater proportioning accuracy and better additive distribution. Suitable dispensing pumps with adjustable flow rates should be used for optimum performance. Diluted TAVERO® HEA2® may be added onto the clinker conveyor belt or sprayed into the mills first compartment.

BLAINE SURFACE AREA (CM ² /G)	TAVERO® HEA2® DOSAGE RATE % BY WEIGHT OF CEMENT
2700 - 3500	0.01 - 0.02
3500 - 4500	0.02 - 0.04
Over 4500	0.04 - 0.06

Addition Rate

EA2 typical dosage rates will vary from 0.01% – 0.05% by weight of cement for Types I & II cements and 0.04% – 0.08% by weight of cement for Type III cements.

Dosing Equipment

GCP grinding aids should be accurately proportioned through a calibrated dosing system, suitable for the cement mill and output required.

Specification Compliance

Approved for use under ASTM C 465 specification as a non-harmful processing addition, TAVERO® HEA2® has been thoroughly tested and is widely used in the cement industry.

Packaging

TAVERO® HEA2® is supplied in 210L drums, or in bulk by tanker trucks. It contains no flammable materials.

Storage

Protect from freezing. Once frozen, the product should be thawed out slowly and re-mixed thoroughly prior to use. Shelf life is minimum 12 months in manufacturer's containers.

Technical Services

Field Engineers from GCP Applied Technologies are available to assist in laboratory and mill test evaluations of TAVERO® HEA2®. Complete testing equipment and methods for analysing mill performance and pack set index are also available during plant trials.

gcpat.com.au | Australia customer service: 1800 855 525

Australia 1800 855 525 New Zealand +64 9 448 1146 China Mainland +86 21 3158 2888 Hong Kong +852 2675 7898 India: Chennai +91 44 6624 2308 Manesar +91 124 488 5900 Indonesia +62 21 893 4260 Japan +81 3 5226 0231 Korea +82 32 820 0800 Malaysia +60 3 9074 6133 Philippines +63 49 549 7373 Singapore +65 6265 3033 Thailand +66 2 709 4470 Vietnam +84 8 3710 6168

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

TAVERO HEA2 is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies, Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2018 GCP Applied Technologies, Inc. All rights reserved.

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP Australia Pty. Ltd., 14 Colebard Street West, Archerfield, Brisbane, Queensland 4108, Australia

This document is only current as of the last updated date stated below and is valid only for use in Australia. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.com.au. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2022-01-31

gcpat.com.au/solutions/products/tavero-grinding-aids/tavero-hea2